8-1-2008

Now is the Time to Sample for Corn Nematodes

Gregory L. Tylka
Iowa State University, gltylka@iastate.edu

search

Subscribe to Crop News

Archives

2015
2014
2013
2012
2011
2010
2009
2008

Previous Years

ISU Crop Resources

Extension Field Agronomists
Crop & Soils Info
Pesticide Applicator Training
Agronomy Extension
Entomology Extension
Plant Pathology Extension
Ag and Biosystems Engineering Extension
Agribusiness Education Program
Iowa Grain Quality Initiative
College of Agriculture and Life Sciences
ISU Extension

Integrated Crop Management NEWS

Print story
Email story
Add to Delicious
Atom Feed
Follow on Twitter

Now is the Time to Sample for Corn Nematodes

By Greg Tylka, Department of Plant Pathology

Interest in plant-parasitic nematodes as pests of corn in Iowa, and much of the Midwest, has increased dramatically in the past few years. Damage from these microscopic worms, which feed from within the roots and on the outside of roots, can cause overall stunting of the plant and yellowing of foliage. Ears may be stunted and poorly filled due to damage by this pest. Feeding by some nematode species also causes swelling of corn roots. None of these symptoms are unique and useful in identifying fields in which such damage is occurring.

To determine if nematodes are responsible for damage being observed to corn, a root and soil sample must be collected mid season to determine the nematode species present and their population densities (numbers). Sampling mid season, when numbers are greatest, is necessary because corn nematode population densities increase through the growing season and the different nematode species vary in the number needed to cause damage.

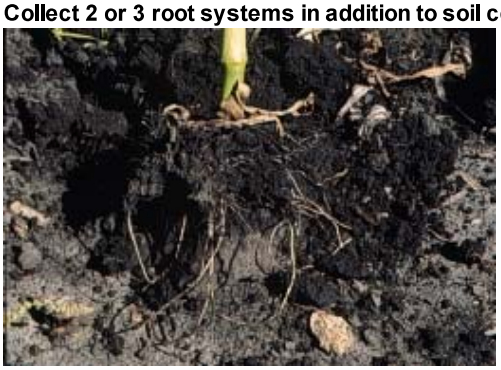
NOW is prime time to be checking corn fields for the presence of corn nematodes.

To test for corn nematodes, collect 20 or more 12-inch-deep soil cores from plants showing symptoms that might be due to corn nematode feeding damage. Also collect two or three root balls from plants that are showing symptoms.

Collect soil cores from root zone of corn.

Collect 12-inch-deep soil cores.

Collect 2 or 3 root systems in addition to soil cores.



Mix the soil cores well, then place soil and roots in a moisture-proof bag and submit for processing as soon as possible. In the hot summer months, avoid shipping the samples near the end of the work week which can leave samples exposed to high heat in uncooled delivery trucks over the weekend. Such heat will damage the nematodes within the sample and can affect the sample results.

Samples for corn nematode diagnosis, a complete nematode count, can be sent to:

> *ISU Plant and Insect Diagnostic Clinic,*
> *327 Bessey Hall,*
> *Iowa State University,*
> *Ames, IA 50011.*

Samples sent to ISU should be accompanied by a completed Plant Nematode Sample Submission Form and a check for the $30 per sample processing fee. For more information about corn nematodes, read the ISU Extension publication titled "Nematodes That Attack Corn in Iowa."

Greg Tylka is a professor of plant pathology with extension and research responsibilities in management of plant-parasitic nematodes.
